

ABSTRACT OF THE DISCLOSURE

Self-reducing, cold-bonded pellets and a method for their production for smelting a great variety of steels, including blast furnace iron-making, non-blast furnace iron-making, and all sorts of steelmaking in steel smelting furnaces, etc. The self-reducing, cold-bonded pellets comprise iron ore concentrate, carbonaceous reducing agent, and finely divided Portland cement clinker with special requirements as binder. The components are combined together to form a mixture. Pellets are produced when the mixture is placed into a balling disc or rotating drum and water is added. Pellets with predetermined size normally ranging from about 8-16 mm are obtained by using roller screens. The pellets are then continuously placed into a curing device. Inside the curing device, the pellets will then be hydrated and carbonated by using hot gases containing carbon dioxide with a temperature range of about 100-300 °C. Thereafter, after drying, the dried pellets are discharged from the curing device and will be ready for use.